

In the Final Office Action the Examiner renewed the rejections made in the First Office Action. The Examiner rejected Claims 1-8 and 9-20 under 35 U.S.C. § 103(a) as being unpatentable over **Weinberg** (U.S. Patent No. 5,814,135) in view of **Holter et al.** (U.S. Patent No. 5,015,451) and **Scheinberg** (U.S. Patent No. 3,693,327). The Examiner reasoned that **Weinberg** disclosed an air filter with “porous polyvinyl acetal polymer to bind the iodine vapor passing through.” **Holter et al.** disclosed an air filter employing humidifying agents, and **Scheinberg** teaches a filter having a visual indicator of saturation.

### **Claim Rejections Under 35 U.S.C. § 103**

Applicant respectfully traverses the Examiner’s finding of obviousness and requests reexamination based on the following remarks. The central premise of the Examiner’s obviousness finding is that **Weinberg** “discloses a disinfecting air filter comprising on an inlet side an iodinating layer wherein the filter material is impregnated with elemental iodine, and on the outlet side **a porous polyvinyl acetal polymer to bind the iodine vapor passing through.**”(Emphasis added). However, a careful inspection of the reference does not support this assertion. Column 4 lines 21-29 reads:

The filter **14** can contain any of a number of filter materials. A HEPA (High Efficiency Particulate Air) filter can be used to remove both particulates and pathogens. Other popular filtering material [sic] such as glass wool or polyvinyl acetal sponge can be advantageously used to remove particulates and pathogens. Alternatively, a filter impregnated with a germicidal agent such as iodine can be used for pathogen inactivation.

This reference teaches that polyvinyl acetal sponge is well known for removing particulates. There is no mention of a combination between polyvinyl acetal and iodine. Note that the sentence mentioning iodine starts “alternatively”. This separates iodine from polyvinyl acetal. If **Weinberg** had had any knowledge that polyvinyl acetal could be used to remove iodine, he would have so stated rather than separating the polyvinyl acetal from germicides with “alternatively”. Clearly the notion was that polyvinyl acetal could filter pathogens out **OR** (alternatively) one could add a germicide like iodine to kill the pathogens on the filter. **Weinberg** entertains no thought of removing iodine vapor. No claims of the **Weinberg** patent combine iodine and polyvinyl acetal. It is clear that that inventor had no knowledge or thought of such a combination. Perhaps this is because the device is not intended for use in a mask where the iodine could be directly inhaled.

Applicant’s attorney has had a conversation with the Examiner concerning this rejection. During the course of this conversation it became apparent that Applicants original claim language fails to positively claim the structures that differentiate Applicant’s invention from that of the cited references. Specifically, the original claims did not make it clear that Applicant’s invention was a device that added iodine vapor to the air to kill microbes and then removed the iodine so that it would not be inhaled. New claims intending to clarify this point were presented to the Examiner. In the ensuing discussion it appeared that the new claims are successful in differentiating Applicant’s invention from the cited art.

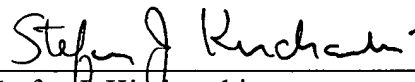
The claims have been redrafted to positively claim the addition of iodine to the gas stream by the iodine source layer of an air filter and to positively claim the removal of iodine

from the gas stream by an iodine removing layer. Applicant believes that no prior art shows a gas permeable filter that iodinated and then strips iodine from a gas stream to kill or inactivate microorganisms in the gas. Therefore, these new claims should be allowable. All of the remaining claims of the application depend from these claims and should also be allowable.

Assuming that a search fails to find art showing a filter that adds iodine vapor to a gas stream and then removes it from a gas stream, Applicant respectfully submits that the case is now in condition for allowance and requests an early notification of the same. Questions, suggestions, and comments from the Examiner are welcomed. If the Examiner believes that a telephone conference would help further the prosecution of the case in any way whatsoever, the Examiner is requested to contact the undersigned attorney at the listed telephone number. It is not believed that any additional fees are owed in this case; however, you are hereby authorized to charge any necessary fees and credit any excess fees to Deposit Account 07-1853.

Respectfully submitted,

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